AMENDMENTS TO THE CLAIMS

Claims 1 - 25 (Cancelled).

26. (Previously presented) A communication system comprising:

a PABX for an internal network and configured to connect to external networks; and

a plurality of extensions for connecting to the internal network and to the external network via the PABX, wherein

the plurality of extensions include at least one mobile phone that is configured to be connected to an external mobile phone network using a wireless carrier,

the PABX includes

a CPU having a memory,

a power supply and power supply circuits,

software that enables the CPU to perform the functions of (i) answering, making and transferring phone calls and (ii) detecting, identifying and integrating mobile phones into the communication system as extensions for connecting to the internal network,

fixed and mobile network circuits,

detection and reversible circuits for switching from an extension to a trunk line or a network and for switching from the trunk line or the network to the extension, and

a mobile phone transmitting/receiving unit and antenna for directly communicating with any mobile phone that is integrated into the communication system as an extension for connecting to the internal network, and

the at least one mobile phone integrated into the communication system as an extension connects to the internal network via the mobile phone transmitting/receiving unit and antenna of the PABX, to the external network via the mobile phone transmitting/receiving unit and antenna of the PABX, and to the external mobile phone network via direct communication using the wireless carrier without using the mobile phone transmitting/receiving unit and antenna of the PABX.

27. (Previously presented) The communication system according to claim 26, wherein directly communicating the mobile phone transmitting/receiving unit and antenna of the PABX with any mobile phone that is integrated into the communication system as an extension is via a cellular oriented communication including GSM, UMTS, TDMA, CDMA, AMPS, NAMPS, ETACS or a frequency independent transmission.

28. (Previously presented) The communication system according to claim 26, wherein directly communicating the mobile phone transmitting/receiving unit and antenna of the PABX with any mobile phone that is integrated into the communication system as an extension is via a satellite communication.

29. (Currently amended) `The communication system according to claim 26, wherein directly communicating the mobile phone transmitting/receiving unit and antenna of the PABX with any mobile phone that is integrated into the communication system as an extension device and is via a radio communication, "trunking", UHF, VHF and ~~other legally allowed frequencies~~ is frequency independent.

30. (Previously presented) The communication system according to claim 26, wherein phone calls received by the PABX either from fixed or from mobile telephone networks are transferred.

31. (Previously presented) The communication system according to claim 26, wherein phone calls made from the PABX are transferred either from fixed or from mobile telephone networks.

32. (Previously presented) The communication system according to claim 26, wherein the mobile phone can also access to PABX authorized services.

33 (Previously presented) The communication system according to claim 26, wherein the plurality of extensions include a plurality of fixed extensions and a plurality of mobile phones.

34. (Previously presented) The communication system according to claim 26, wherein the mobile phone transmitting/receiving unit and antenna operates based upon one of GSM, UMTS, TDMA, CDMA, AMPS, NAMPS, ETACS, a transmission by satellite, or transmission not dependent on frequency, frequency band or modulation.

35. (Previously presented) The communication system according to claim 26, wherein the detection and reversible circuits comprise detection circuits for identifying mobile phones after communication has been established.

36. (Previously presented) The communication system according to claim 35, wherein identifying a mobile phone is made by a code sent through the mobile phone.

37. (Previously presented) The communication system according to claim 35, wherein identifying a mobile phone is done automatically.

38. (Previously presented) The communication system according to claim 35, wherein identifying a mobile phone is done by more than one PABX.

39. (Previously presented) The communication system according to claim 35, wherein the CPU performs procedures including answering, making and receiving phone calls, and detecting, identifying and integrating mobile phones into the communication system.

40. (Currently amended) The communication system according to claim 26, wherein the CPU comprises a reversible package to enable the PABX, at any time of functioning, to switch from [a] <u>an external or internal</u> network to an extension of the PABX.

41. (Currently amended) A communication method for integrating at least a mobile phone in a PABX by establishing a connection and communication between the mobile phone and the PABX via carrying out the following steps:

when the PABX starts the connection, the PABX sends to the mobile phone a connection indication signal through a transmission line, the mobile phone accepts the communication, circuits identify the mobile ~~pone~~ phone as a mobile phone extension and switch the circuits, and a CPU of the PABX immediately integrates the mobile phone extension in the PABX;

when the mobile phone or the mobile phone extension starts the connection, the mobile phone or the mobile phone extension sends to the PABX a connection indication signal through the transmission line, the PABX accepts the communication, the circuits identifying the mobile phone as a mobile extension and switch the circuits, and the CPU of the PABX immediately integrates the mobile phone extension in the PABX as an internal extension of the PABX; and

allowing system operation of development, processing and progress including answering, making and transferring phone calls, and detecting, identifying and integrating mobile phones in the PABX, as well as accessing all services of the PABX as an internal extension of the PABX.

42. (Previously presented) The method according to claim 41, further carrying out the steps of:

controlling the mobile phone identification through system detectors and after identification of the mobile phone, assigning the mobile phone with an extension number which corresponds to the mobile phone identification in a memory of the CPU.

43. (Previously presented) The method according to claim 41, further carrying out the steps of:

commanding a PABX reversible package to switch a communication channel, which is being used by the mobile phone, from a network to an extension of the PABX.

44. (Previously presented) The method according to claim 41, further carrying out the steps of:

programming an extension number according to an existing mobile phone number.

45. (Previously presented) The method according to claim 41, further carrying out the steps of:

assigning and routing PABX accesses or services to the mobile phone extension as though a fixed extension of the PABX.

46. (Previously presented) The method according to any one of claims 41-45, wherein

a procedure answering a phone call includes the steps of:

the PABX receives, from an internal, external, fixed or mobile extension, a Direct Dialing Inward (DDI) number that corresponds to at least one extension that is either a fixed extension or mobile extension, and when the at least one extension is the mobile extension, the CPU immediately integrates an extension circuit with the mobile phone and the mobile phone thereafter operates as a fixed extension which rings and is allowed to answer a phone;

making phone calls when at least one mobile phone connects through the transmission line to free PABX identification and reversible circuits, which make the identification of the at least one mobile phone and the user, and if authorized, integrating the mobile phone as a mobile extension, allowing the mobile extension to access all PABX services as well as extensions and trunks of the PABX in accordance with restrictions and authorizations that are assigned to the mobile extension as an internal or fixed extension; and

during a phone call between two parts, one of the parts, which is an internal, external, fixed or mobile extension, holds the call and dials a destination mobile extension number, the CPU integrates the extension circuit with the mobile phone corresponding to the destination mobile extension number which rings and is allowed to answer the call, and the one of the parts that holds the call disconnects and transfers the held call from the PABX to the mobile phone corresponding to the destination mobile extension number, wherein, the one of the parts that holds the call can communicate with the mobile phone corresponding to the mobile extension number before disconnecting and transferring the held call.

47. (Previously presented) A communication system comprising:

a PABX for an internal network and configured to connect to an external network;

a plurality of extensions for connecting to the internal network and to the external network via the PABX; and

a mobile phone transmitting/receiving unit and antenna connected to the PABX, wherein

the plurality of extensions include at least one mobile phone that is configured to be connected to an external mobile phone network using a wireless carrier,

the PABX includes

a CPU having a memory,

a power supply and power supply circuits,

software that enables the CPU to perform the functions of (i) answering, making and transferring phone calls and (ii) detecting, identifying and integrating mobile phones into the communication system as extensions for connecting to the internal network of the PABX,

fixed and mobile network circuits, and

detection and reversible circuits for switching from an extension to a trunk line or a network and for switching from the trunk line or the network to the extension,

the mobile phone transmitting/receiving unit and antenna is for directly communicating with any mobile phone that is integrated into the communication system as an extension, and

the at least one mobile phone integrated into the communication system as an extension connects to the internal network via the mobile phone transmitting/receiving unit and antenna connected to the PABX, to the external network via the mobile phone transmitting/receiving unit and antenna connected to the PABX, and to the external mobile phone network via direct communication using the wireless carrier without using the mobile phone transmitting/receiving unit and antenna connected to the PABX.